

CLAIM AMENDMENTS

Claims 11-12 (Cancelled).

Claim 13. (Previously Presented) A method for selectively separating live cells which have expressed mRNA encoding interleukin -2 (IL-2) comprising:

a first step of introducing a probe capable of labeling mRNA into cells in a live cell group containing live cells which have expressed the specific mRNA;

wherein the probe comprises a first probe having the base sequence set forth in SEQ ID NO:9 in the Sequence Listing and the second probe having a base sequence set forth in SEQ ID NO:10 in the Sequence Listing each labeled with a fluorescent dye, the first probe and the second probe have base sequences complementary to said mRNA and capable of hybridizing thereto adjacently, and the first probe is labeled with an energy donor fluorescent dye and the second probe is labeled with an energy acceptor fluorescent dye;

a second step of labeling said mRNA with said probe to obtain a live cell group containing live cells having the labeled mRNA which is a hybrid of the probe and said mRNA; and

a third step of detecting said labeled mRNA by irradiating light to the live cell group containing live cells having the hybrid and by identifying live cells which cause a change in fluorescence of said fluorescent dye based on formation of the hybrid due to fluorescence resonance energy transfer (FRET) from the energy donor fluorescent dye of the first probe to the energy acceptor fluorescent dye of the second probe, and separating the identified live cells selectively from said live cell group.

Claim 14. (Previously Presented) A method for selectively separating live cells which have expressed mRNA encoding interleukin-4 (IL-4) comprising:

a first step of introducing a probe capable of labeling mRNA into cells in a live cell group containing live cells which have expressed the specific mRNA;

wherein the probe comprises a first probe having the base sequence set forth in SEQ ID NO:17 in the Sequence Listing and a second probe having the base sequence set forth in SEQ ID NO:18 in the Sequence Listing each labeled with a fluorescent dye, the first probe and the second probe have base sequences complementary to said mRNA and capable of hybridizing thereto adjacently, and the first probe is labeled with an energy donor fluorescent dye and the second probe is labeled with an energy acceptor fluorescent dye;

In re Appln. of ISHIBASHI et al
Application No. 09/775,818

a second step of labeling said mRNA with said probe to obtain a live cell group containing live cells having the labeled mRNA which is a hybrid of the probe and said mRNA; and

a third step of detecting said labeled mRNA by irradiating light to the live cell group containing live cells having the hybrid and by identifying live cells which cause a change in fluorescence of said fluorescent dye based on formation of the hybrid due to fluorescence resonance energy transfer (FRET) from the energy donor fluorescent dye of the first probe to the energy acceptor fluorescent dye of the second probe, and separating the identified live cells selectively from said live cell group.

Claims 15-18 (Cancelled).